

PATENT CLAIMS

1. **(Currently Amended)** A heat resistant aluminium alloy for heat exchangers, wherein
~~characterized in that~~ the aluminium alloy comprises the following proportions of alloy components in weight percent:

$0.3 \% \leq \text{Si} \leq 1 \%$,
 $\text{Fe} \leq 0.5 \%$,
 $0.3 \% \leq \text{Cu} \leq 0.7 \%$,
 $1.1 \% \leq \text{Mn} \leq 1.8 \%$,
 $0.15 \% \leq \text{Mg} \leq 0.6 \%$,
 $0.01 \% \leq \text{Cr} \leq 0.3 \%$,
 $\text{Zn} \leq 0.10 \%$,
 $\text{Ti} \leq 0.3 \%$,

unavoidable impurities separately representing a maximum of 0.1 %, together a maximum of 0.15 %, and the remainder being aluminium.

2. **(Currently Amended)** The aluminium alloy for heat exchangers according to claim 1, wherein
~~characterized in that~~ the aluminium alloy comprises the following proportions of alloy components in weight percent:

$0.15 \% \leq \text{Mg} \leq 0.3 \%$
 $\text{Zn} \leq 0.05 \%$
 $0.01 \% \leq \text{Ti} \leq 0.3 \%$.

3. The aluminium alloy according to claim 1 ~~one of claims 1 or 2~~,
wherein
~~characterized in that~~ the aluminium alloy comprises the following proportions
of the alloy components Si, Fe, Mn in weight percent:

$$0.5 \% \leq \text{Si} \leq 0.8 \%,$$

$$\text{Fe} \leq 0.35 \%,$$

$$1.1 \% \leq \text{Mn} \leq 1.5 \%.$$

4. **(Currently Amended)** A method for producing an aluminium strip or
aluminium sheet for heat exchangers from a heat resistant aluminium alloy
according to claim 1 ~~one of claims 1 to 3~~,
wherein
~~characterized in that~~ a rolling ingot is cast in a continuous casting process, the
rolling ingot is preheated at 400 to 500° C prior to hot rolling, the rolling ingot
is rolled to a hot strip, with the hot strip temperature being 250 to 380° C and
the hot strip thickness being 3 to 10 mm at the end of the hot rolling and the
hot strip is cold rolled to final thickness.
5. **(Currently Amended)** The method for producing an aluminium strip or
aluminium sheet for heat exchangers according to claim 4,
wherein
~~characterized in that~~ the rolling ingot is homogenized prior to the preheating.
6. **(Currently Amended)** The method for producing an aluminium strip or
aluminium sheet for heat exchangers according to claim 4 ~~one of claims 4 or 5~~,
wherein
~~characterized in that~~ the hot strip is intermediately annealed at a temperature of
300 to 450° C.

7. **(Currently Amended)** The method for producing an aluminium strip or aluminium sheet for heat exchangers according to claim 4 ~~one of claims 4 to 6~~,
wherein
~~characterized in that~~, during the cold rolling, the aluminium strip is intermediately annealed at a temperature of 300 to 450° C prior to reaching the final thickness.
8. **(Currently Amended)** The method for producing an aluminium strip or aluminium sheet for heat exchangers according to claim 4 ~~one of claims 4 or 7~~,
wherein
~~characterized in that~~ subsequent to the cold rolling, a phase annealing step to the final state takes place at a temperature of 250 to 400° C.
9. **(Currently Amended)** The method for producing an aluminium strip or aluminium sheet for heat exchangers according to claim 4 ~~one of claims 4 or 8~~,
wherein
~~characterized in that~~ prior to the preheating, the rolling ingot is provided on one or two sides with plates made of another alloy.
10. **(Currently Amended)** The method for producing an aluminium strip or aluminium sheet for heat exchangers according to claim 9,
wherein
~~characterized in that~~ the plates are comprised of a solder alloy and as solder alloy there is used an aluminium solder, in particular an aluminium alloy comprising 6 to 13 weight percent Si, preferably an AlSi7.5 alloy or AlSi10 alloy.
11. **(Currently Amended)** The method for producing an aluminium strip or aluminium sheet for heat exchangers according to claim 4 ~~one of claims 4 or 10~~,
wherein

~~characterized in that~~ the hot strip is cold rolled to a final thickness of 0.1 to 2.0 mm.

12. **(Currently Amended)** Aluminium strip or aluminium sheet comprised of an aluminium alloy according to claim 1 ~~one of claims 1 to 3~~ produced according to a method according to claim 4 ~~to 11~~.
13. **(Currently Amended)** The aluminium strip or aluminium sheet according to claim 12,
wherein
~~characterized in that~~ the aluminium strip is a tube strip, a tube plate strip, a side part strip or a disk strip for producing a heat exchanger.
14. **(Currently Amended)** The aluminium strip or aluminium sheet according to claim 13,
wherein
~~characterized in that~~ the tube strip has a final thickness of 0.15 to 0.6 mm, preferably 0.15 to 0.4 mm, the tube plate strip a final thickness of 0.8 to 2.5 mm, preferably 0.8 to 1.5 mm or the side part strip a final thickness of 0.8 to 1.8 mm, preferably 0.8 to 1.2 mm or the disk strip a final thickness of 0.3 to 1.0 mm, preferably 0.3 to 0.5 mm.